

No. 13.— *Jamaican Ants collected by Prof. C. T. Brues.*

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CONTRIBUTIONS FROM THE ENTOMOLOGICAL LABORATORY OF THE
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A FINE series of ants recently collected in Jamaica by Professor Brues is of unusual interest because most of them were taken in new localities and comprise several forms new to science or unrecorded in my papers on Jamaican ants published in 1908, 1911, and 1913. There are also a few new records in Forel's paper of 1912 on the neotropical ants. I have included these, prefixing all the new records with an asterisk. With the additions and a few changes in nomenclature necessitated by the study of more abundant material, some 70 species, subspecies, and varieties of Formicidae are now known from Jamaica.

1. *Platythyrea punctata* (F. Smith) var. *pruinosa* Mayr. ♀ —Montego Bay (Amer. Mus. Coll.).

Forel has shown that the form of this species occurring in Jamaica is the var. *pruinosa* and not the typical form.

2. *Ectatomma* (*Holcoponera*) *striatulum* Mayr. ♀.—Newton, 3,000 ft.; Kingston.

The series from the former locality comprises 28 workers, from the latter a single specimen which is smaller, more reddish, with less pronounced mesoëpinotal angle in profile and longer spines on the hind coxae. It may represent a distinct subspecies, but the material is insufficient to justify the introduction of a new name.

3. *Euponera* (*Trachymesopus*) *stigma* (Fabricius). ♀.—Cinchona, 5,000 ft.
4. *Ponera opaciceps* Mayr. ♀ ♂.—Newton, 3,000 ft.
5. *Ponera trigona* Mayr. var. *opacior* Forel. ♀.—Newton, 3,000 ft.
- *6. *Leptogenys puncticeps* Emery. ♀.—Newton, 3,000 ft.

Not hitherto recorded from Jamaica, though known from Grenada and resembling the form from that island in all respects. The types

are from Costa Rica. Forel has described a subspecies *vincentensis* from the island of St. Vincent. It has the legs entirely red and the anterior clypeal projection and posteromedian projection of the petiole are less pointed than in the typical form.

7. *Odontomachus haematoda* (Linné) subsp. *insularis* Guérin. ♀.—Liguanea Plain.
8. *Odontomachus haematoda* subsp. *insularis* var. *ruginodis* Wheeler. ♀ ♀.—Newton, 3,000 ft.
9. *Pseudomyrma flavidula* F. Smith var. *delicatula* Forel. ♀.—Kingston.
- *10. *Pseudomyrma eduardi* Forel. ♀.—Newton, 3,000 ft.

A single specimen agreeing perfectly with Forel's description.

11. *Monomorium carbonarium* F. Smith subsp. *ebeninum* Forel. ♀ ♀.—Kingston.
12. *Cardiocondyla emeryi* Forel. ♂.—Liguanea Plain.

A single specimen with the head darker and the epinotal spines somewhat longer than in specimens from other localities in my collection.

13. *Solenopsis geminata* (Fabr.). ♀ ♀ ♂.—Newton, 3,000 ft.; Liguanea Plain.
14. *Pheidole fallax* Mayr. 2 ♀.—Newton, 3,000 ft.
- *15. *Pheidole fallax* Mayr var. *oralis* Forel.

According to Forel the soldier of this variety, which he recently described from Jamaica, differs from the typical *fallax* in having the head rather oval, with much more convex sides and much narrower behind. The occipital lobes are narrower, more prominent and more densely rugose. I refer specimens from Kingston (M. Grabham) to this variety, but other specimens from Balaclava (A. E. Wight) seem to be intermediate between it and the typical form.

16. *Pheidole rodoszkowskii* Mayr var. *opacissima* Forel. 2 ♀.—Newton, 3,000 ft.
17. *Pheidole megacephala* (Fabr.). 2.—Cinchona, 5,000 ft.
18. *Pheidole caribbaea* Wheeler. ♀.—Newton, 3,000 ft.

A single dealated specimen agreeing with the gynotypes taken by Wight at Balaclava, except that the body is somewhat more hairy like that of the following subspecies:

*19. *Pheidole caribbaea* subsp. *sloanei*, subsp. nov.

Soldier. Differing from the typical form in the following particulars:— the head is a little smaller, the sculpture of the head and especially of the thorax, pedicel, and gaster is distinctly feebler and more superficial, the occipital corners of the head being smooth and shining and the pronotum somewhat shining, though transversely rugose above. The rugae on the head lateral to the front are not longitudinal but reticulate, or at any rate indistinctly longitudinal, whereas they are sharply longitudinal in the typical form. The hairs on the body and appendages are longer and more abundant. The color is paler, the body and legs being dark brown throughout or with only the scapes and metanotum darker or blackish. The tarsi are yellowish as in the type.

Worker. Like the worker of the typical form but of a slightly paler brown color and with the hairs on the legs and scapes longer and less oblique and those on the head and thorax more numerous.

Female. Differing from the female of the typical *caribbaea* in nearly the same characters as the soldier. The occipital border of the head is shining, but the anteromedian shining streak on the mesonotum is somewhat less pronounced. Wings long, colorless, with dark brown pterostigma and very pale brown veins.

Described from eight soldiers, one worker, and three females taken at Newton, 3,000 ft.

*20. *Pheidole punetatissima* Roger subsp. *jamaicensis* Wheeler var. *barbouri* Wheeler. ♂ ♀.—Cinchona, 5,000 ft.

Almost indistinguishable from the types. Possibly imported with plants into Jamaica from Cuba.

21. *Pheidole flavens* Roger. ♂ ♀.—Kingston.

*22. *Pheidole floridana* Emery subsp. *stomachosa*, subsp. nov.

Soldier. Differing from the typical *floridana* in having distinctly longer antennae and the longitudinal rugae on the clypeus and anterior portion of the head more pronounced. They are also present lateral to the frontal carinae on the feeble scrobe-like depressions which are merely finely and densely punctate in *floridana*. The humeral angles and lateral conules of the postpetiole are more acute. The sculpture of the thorax is more pronounced but that of the petiole and postpetiole is feebler so that these segments are more shining. The gaster is opaque and finely punctate at the extreme base above. The head,

thorax, pedicel, and gaster are chestnut-brown, the legs and antennae yellow. The pilosity is precisely like that of *floridana*.

Worker. Head and pronotum very smooth and shining, unlike the same parts in *floridana*, which are opaque and densely and finely punctate. The antennae are longer, the scapes extending beyond the occipital border of the head. The sparse, erect hairs on the body are blunt but not thickened as in *floridana*. The color is the same as that of the soldier.

Female (deälated). The head has the posterior corners shining but is otherwise opaque and with the longitudinal rugae sharp and extending to the posterior corners. Color like that of the soldier.

Described from numerous specimens of all three phases from Newton, 3,000 ft.

*23. *Pheidole* (*Ceratopheidole*) *hecate* Wheeler subsp. *bruesi*, subsp. nov.

Soldier. Differing from the subsp. *malevola* Wheeler as follows:—the head is somewhat smaller. The rugae on the front of the head are less pronounced, and the sides, lateral to the frontal carinae, are very smooth and shining, with only a few short rugae at the anterior border of the cheeks and a few indistinct rugae median to the eyes. The antennal scapes are longer, reaching the posterior corners of the head. The thorax is more shining, with the transverse rugae sharper and more regular and without the punctate interrugal spaces of *malevola*. The long epinotal spines are distinctly more curved and less erect. The color of the body and appendages is darker, being nearly black, the mandibles darker red, with black borders.

Worker. Differing from the worker *malevola* only in its darker color and in the epinotal spines, which like those of the soldier are more curved and less erect.

Described from six soldiers and 26 workers from Newton, 3,000 ft.

24. *Crematogaster steinheili* Forel. ♀.—Kingston.

Forel now regards this form as a distinct species and not as a variety of *victima* F. Smith.

25. *Crematogaster brevispinosa* Mayr subsp. *vicina* Ern. André.
♀ ♀ ♂.—Newton, 3,000 ft. (Brues); Kingston (E. A. Andrews, M. Grabham); Balaclava, Troy (A. E. Wight).

Forel regards this as a subspecies of *brevispinosa*, distinguished from

the typical form by the absence of the tooth on the lower anterior surface of the petiole. The tooth is present, however, in the workers of some colonies, though very small. His statement that the antennal scapes reach the occipital border of the head does not agree with my observations. The material collected from the localities mentioned above shows that my var. *wighti* is untenable. André undoubtedly drew his color description of *vicina* from immature specimens, as I find two colonies in which part of the workers have the pale color he describes while others have the dark mature color on which I based the var. *wighti*. Different colonies also show considerable differences in the size of the workers, from 1.8 mm. to 3.5 mm.

The female measures 4.5–5.5 mm. and is very smooth and shining throughout, of a rich castaneous color, with the antennae and legs a little paler and the gaster nearly black. The antennal scapes do not reach to half the distance between the posterior orbits and the posterior corners of the head. The epinotal spines are reduced to minute, acute teeth and the petiole bears a vestige of a tooth at its anterior ventral border.

The male measures about 2 mm. and is sordid yellow, with the head and apex of the gaster dark brown, the clypeus and some clouds on the thorax pale brown. The wings are long and whitish hyaline, with colorless veins and pterostigma.

This ant constructs an interesting, more or less globular or turnip-shaped, black carton nest about four to six inches in diameter on trees and fences. The accompanying plates (Plates 1, 2) from photographs by Professor Brues give excellent views of its external and internal structure.

*26. *Cryptoeerus (Cyathoecephalus) varians* F. Smith.

Forel states that he took this species in the botanical garden at Kingston.

27. *Cyphomyrmex rimosus* (Spinola) subsp. *minutus* Mayr. ♂.—
Liguanea Plain.

28. *Cyphomyrmex foxi* Ern. André. ♀ ♀.—Newton, 3,000 ft.

Numerous specimens from four colonies. The female, hitherto undescribed, is represented by a single, deilated individual. It measures 3.4 mm. and closely resembles the worker in color, sculpture, and pilosity and in the structure of the head. The spines on the humeri of the pronotum are long and stout. The mesonotum is flattened

above, as broad as long, with a pair of low longitudinal welts anteriorly and expanded postero-lateral borders, bluntly dentate anteriorly and posteriorly. The scutellum is bluntly bidentate and projecting. The epinotum is abruptly declivous, without distinct base and declivity, and with a pair of longitudinal ridges terminating behind in large, blunt, compressed teeth. Between these ridges the surface is transversely rugose. The petiole is small and similar to that of the worker, the postpetiole very large, broader than long, subrectangular when seen from above, with two short, blunt, longitudinal ridges, terminating in large blunt projections behind and separated by a deep concavity. The gaster is broadly oval, hardly longer than broad, rounded above, on the sides and behind, without longitudinal ridges and with a distinct median longitudinal groove at the base.

29. *Iridomyrmex iniquus* Mayr. ♀.—Cinchona, 5,000 ft.
30. *Iridomyrmex iniquus* Mayr var. *nigellus* Forel. ♀.—Kingston.
31. *Prenolepis* (*Nylanderia*) *longicornis* Latr. ♀♀.—Newton, 3,000 ft.
32. *Prenolepis* (*Nylanderia*) *vividula* Nyl. ♀.—Cinchona. 5,000 ft.
33. *Brachymyrmex heeri* Forel var. *obscurior* Forel. ♀♀♂.—Cinchona, 5,000 ft.
34. *Camponotus* (*Myrmoturba*) *conspicuous* F. Smith.

Worker maxima. (Fig. 1, a). Length 8-10 mm.

Head rather small, trapezoidal, with broadly excised posterior border and the sides straight in the middle and rounded anteriorly. Cheeks with an oblique impression. Eyes moderately large, vertex with three ocellus-like pits. Mandibles small, very convex, 7-toothed. Clypeus sharply carinate, its lobe very short and indistinct, hardly notched in the middle. Frontal area small, rounded anteriorly and posteriorly. Antennal scapes slightly flattened but not dilated at the base, gradually enlarged distally and extending about $\frac{1}{3}$ their length beyond the occipital border of the head. Thorax narrow and low, laterally compressed behind, its dorsal outline in profile rather evenly convex, but with the base of the epinotum feebly concave. The base is twice as long as the declivity into which it passes through a distinct obtuse angle. Mesonotum present but bounded by feeble sutures; promesonotal suture strongly impressed. Petiole small, oval, as high as the epinotal angle, convex in front, flat behind, with entire, rounded, moderately sharp border. Gaster elongate elliptical. Legs slender,

middle and hind tibiae slightly compressed, distinctly grooved, without a row of bristle on their flexor surfaces.

Shining; mandibles coarsely punctate, shagreened and subopaque at the base. Head subopaque, densely punctate in front, shagreened behind; clypeus and cheeks more shining, covered with sparse, elongate, shallow, piligerous foveolae. Thorax, petiole, gaster, and legs very finely shagreened and covered with small, sparse, piligerous punctures.

Hairs yellow, long, erect, and sparse on the body, shorter on the gula,

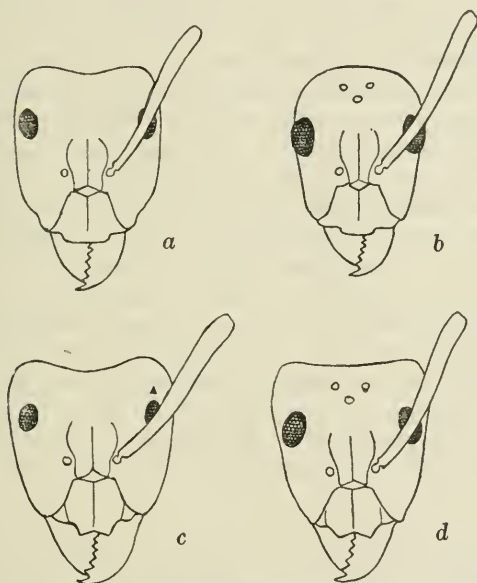


Fig. 1. *Camponotus (Myrmolurba) conspicuus* F. Smith, a, head of worker maxima, b, head of female, c, head of worker maxima of *C. (Myrmothrix) hannani* Forel, d, head of female.

longest on the gaster. Scapes with a few erect hairs at their tips. Legs and especially the tibiae with very short, stiff, oblique hairs. Cheeks and clypeus with a number of somewhat longer, suberect hairs. Pubescence yellow, rather long, dilute, very distinct on the gaster and corners of the head, almost lacking on the thorax, indistinct on the antennal scapes.

Yellowish red; head a little darker, legs slightly paler; mandibles and antennae dark red, the former with black teeth; anterior border

of clypeus and cheeks black. Gaster with an ill-defined brown band across the posterior portion of each segment.

Worker minima. Length 5–6 mm.

Head $1\frac{2}{3}$ times as long as broad, as broad through the anterior orbits as at the anterior border, constricted behind the eyes but with rounded sides to the occiput; the articular border short and nearly straight. Eyes rather large and convex, their anterior orbits at the middle of the head. Clypeus carinate, with broad, rather rounded anterior lobe. Antennae slender; scapes terete, extending half their length beyond the occipital border of the head. Thorax slender and low. Petiole and legs like those of the *maxima*.

Sculpture, pilosity, and color as in the *maxima* with the following exceptions:—head smooth and shining like the thorax and of the same color; scapes covered with very short subappressed hairs.

Female. (Fig. 1b). Length 10–12 mm.; wings 9 mm.

Head very narrow, nearly $1\frac{1}{3}$ times as long as broad, slightly broader behind than in front, with rather straight sides and occipital border. Clypeal lobe rectangular, longer than in the *maxima*, with straight, entire border. Eyes large and convex. Antennae like those of the *maxima* but shorter though extending half their length beyond the occipital border. Thorax long and narrow, regularly elliptical, somewhat broader than the head; mesonotum longer than broad; epinotum evenly rounded, without distinct base and declivity. Petiole like that of the *maxima*, its border entire. Gaster long and narrow.

Sculpture, color, and pilosity as in the *maxima*, the erect hairs on the thorax shorter. Wings pale yellow, with yellow veins and pterostigma.

Male. Length 5–6 mm.

Head, including the eyes, very nearly as broad as long, cheeks straight, slightly converging in front, occipital region broadly rounded. Mandibles small, slender, edentate. Clypeus distinctly carinate, with distinct, entire anterior lobe. Antennae slender, their scapes reaching nearly $\frac{2}{3}$ their length beyond the posterior border of the head. Eyes and ocelli large and prominent. Thorax broader than the head, mesonotum as broad as long. Epinotum convex, sloping, without distinct base and declivity. Petiole thick and low, higher behind than in front, its dorsal surface flattened, subrectangular when seen from above, nearly twice as broad as long and a little broader behind than in front. Gaster, genital appendages, and legs slender.

Smooth and shining, ocellar region and in some specimens the mesonotum more opaque.

Pilosity and pubescence similar to those of the worker, but antennal scapes nude and tibiae with delicate oblique hairs.

Color entirely yellowish red in some specimens, in others yellowish brown, with the occipital portion of the head and segmental bands on the gaster dark brown, the disc of the scutellum and three vague bands on the mesonotum pale brown. Wings colored like those of the female.

Described from numerous specimens of all four phases from Liguanea Plain (Brues), Montego Bay (Amer. Mus. Coll.), Kingston (Forel), and Port Henderson (Paulmier).

It seemed advisable to describe this ant in detail as it has never been adequately described and as its taxonomic status seems to be doubtful. Its identification has been accepted on Forel's authority, but when we turn to Smith's brief description of *Formica conspiciua*, based on a female specimen from Jamaica, it is by no means certain that Forel's interpretation is correct. Smith says that his specimen measures 5-5.5 lines and is "chestnut red; the head about the same width as the thorax, slightly excavated behind; the clypeus subcarinate in the middle, its anterior margin slightly but widely emarginate; mandibles strong, punctured and armed with four or five teeth." The petiolar scale is "wide, ovate, with the margin entire." Now several points in this description, such as the size, strong mandibles, and the shape of the clypeus fit the female of *C. hannani* Forel much better than the form he identified as *conspiciuus*, although this is not true of the petiole. Mayr, who in 1884 examined Smith's type in the British Museum, says only that it is "ein Camponotus mit abstehehend behaarten Tibien." This would also agree with the long tibial pilosity of *hannani*, especially as he would hardly single out the very short tibial hairs of Forel's *conspiciuus* as a noteworthy character. It seems probable, therefore, that Forel's *hannani* is a synonym of Smith's *conspiciuus* and that Forel's *conspiciuus* should be renamed, but as this can be decided only by comparison of both species with Smith's type, I accept Forel's interpretation provisionally.

*35. *Camponotus (Myrmoturba) maculatus* Fabr. subsp., *jamaicensis*, subsp. nov.

Worker maxima. (Fig. 2 a, c). Length 7.5-8.5 mm.

Head large, trapezoidal, longer than broad, with rather straight sides and broadly excavated occipital border. Eyes small, feebly convex. Mandibles 5-6 toothed. Clypeus strongly carinate, its

anterior lobe rather well-developed, rounded on the sides and feebly and narrowly emarginate in the middle. Antennae slender, scapes not compressed, surpassing the posterior corners of the head by about $\frac{1}{5}$ their length. Thorax slender, in profile rather low and long, compressed posteriorly, the dorsal surface evenly convex, the base of the epinotum nearly twice as long as the declivity into which it passes through a distinct angle. Petiole small and narrow, higher than broad, with convex anterior and flat posterior surface, the border moderately sharp, rounded on the sides, slightly truncated in the middle above or even somewhat conical. Gaster rather small and narrow. Legs slender; tibiae neither compressed nor grooved, the posterior pairs without a series of bristles on their flexor surfaces.

Mandibles shining, coarsely and somewhat densely punctate, substriate near the base. Head opaque, with only the anterior corners shining, densely punctate, with the sides, posterior corners and the clypeus evenly covered with scattered, shallow piligerous punctures. Thorax and petiole opaque, more finely and densely punctate than the head. Gaster rather shining, finely, transversely shagreened and with sparse piligerous punctures.

Hairs fulvous, erect, rather long and abundant on the dorsal and gular surfaces of the head, thoracic dorsum, petiolar border, and gaster. On the vertex and sides of the head, epinotum and upper surface of the gaster there are also short, sparse, appressed hairs, representing a very coarse, sparse pubescence. Antennal scapes with denser and finer, subappressed hairs or pubescence. Legs covered with similar but longer and stiffer hairs especially conspicuous on the tibiae.

Mandibles dark red with black teeth and bases or black throughout; head black, its posterior fifth often rich reddish brown. Thorax and gaster dark brown, the sutures of the former, posterior segmental borders of the latter and the petiole brownish yellow or yellowish brown. Antennal scapes and base of first funicular joint black, remainder of funiculus dull fulvous. Legs brownish yellow, the femora sometimes darker.

Worker minima. (Fig. 2 b). Length 4.5-5.5 mm.

Head about $\frac{1}{3}$ longer than broad, a little broader in front than at the level of the eyes, with straight sides and rounder, converging postocular borders. Mandibles with 6 subequal teeth. Clypeus sharply carinate, the anterior border rounded and entire, its edge indistinctly crenulate. Antennae slender; scapes reaching about half their length beyond the posterior border of the head. Thorax and petiole like those of the *maxima*.

Sculpture, pilosity, and color much as in the *maxima* but the head is entirely dark brown like the thorax and the hairs on the body and appendages are somewhat shorter.

Male. Length 5 mm.

Head small and narrow, a little broader behind than in front, rounded and convex behind with straight cheeks as long as the very convex eyes. Antennae slender. Epinotum evenly convex and sloping, without distinct base and declivity. Petiole thick, with very blunt, transverse, entire dorsal surface.

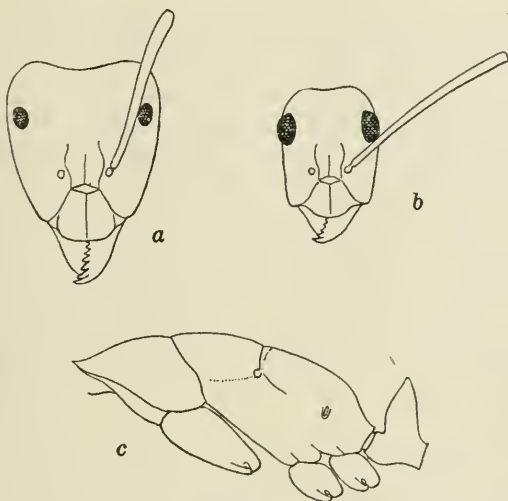


Fig. 2. *Camponotus (Myrmosaga) maculatus* Fabr. subsp. *jamaicensis* subsp. nov. a, head of worker *maxima*, b, head of worker *minima*, c, thorax and petiole of worker *maxima* in profile.

Head and thorax opaque, densely punctate. Petiole and gaster shining, shagreened.

Pilosity as in the worker; the long, erect hairs most abundant on the gaster.

Nearly black; antennal funiculi, mandibles, legs, sutures of thorax, tibiae, and tarsi brown, femora darker. Wings slightly tinged with brown anteriorly; veins and pterostigma pale brown.

Described from several specimens from Newton, 3,000 ft. (type locality); Liguanea Plain (Brues) and Mandeville (A. E. Wight).

This form approaches the subspecies *picipes* Olivier and especially

its variety *pilosulus* Forel. In pilosity it is much like the typical *picipes* but is smaller and the surface of the body is more opaque and the head of the *maxima* has the sides more nearly straight. It resembles *pilosulus* in size but the latter is much more pilose and has the antennal scapes covered with suberect hairs, its head is shaped like that of *picipes* and the surface of the body is shining. In the male *jamaicensis* the head is shorter than in *picipes*, the petiole is entire above, the wings are tinged with brown, the legs are much paler and the body is less shining and not so black.

36. *Camponotus (Myrmothrix) hannani* Forel. (Fig. 1 c and d).
♀.—Newton, 3,000 ft.; Liguanea Plain.

The female measures 12.5 mm., its wings 14 mm. It closely resembles the *maxima* in color, sculpture, and pilosity but the head is smaller, with straight sides and nearly straight posterior border. The antennal scapes are narrower and less flattened, the upper border of the petiole is sharp and rather deeply notched in the middle and the posterior portion of each gastric segment is darker than the remaining surface. The thorax is elongate, elliptical, not broader than the head, the epinotal declivity is vertical and twice as long as the base. The mesonotum and scutellum are very smooth and shining, their erect hairs shorter than those of the worker. The wings are strongly tinged with yellow and the veins and pterostigma are resin-colored.

37. *Camponotus (Myrmobrachys) capperi* Forel. (Fig. 3, a).

Forel places this species in his subgenus *Myrmothrix*, but it seems to belong more properly in *Myrmobrachys*. In the typical *capperi* as I find from examination of two cotypes received from Professor Forel, the base of the epinotum is distinctly concave, with the epinotal angle pronounced, so that the thorax is much like that of many Malagasy and Australian species of *Myrmosaga*. The antennal scapes are naked, save for a few erect hairs at their tips, and the tibiae have short appressed hairs on their flexor surfaces.

- *38. *Camponotus (Myrmobrachys) capperi* var. *formosulus*, var. nov.

Worker. (Fig. 3 d). Length 4.5–5.5 mm.

Differing from the typical form in the shape of the head, which is more elliptical in the larger workers, with more convex sides, in having the base of the epinotum perfectly straight and horizontal in profile,

the petiole red like the gaster instead of black like the head and thorax, and each gastric segment with a more distinct fuscous band in front of the pale yellow posterior margin. The funiculi and femora are red, the tarsi, tibiae, and knees darker as in the typical form. There is little difference in pilosity, except that the gaster of the new variety has longer and more numerous erect hairs in addition to the long, dense pubescence.

Male. Length 4-4.5 mm.

Head through the eyes as broad as long, with straight, subparallel

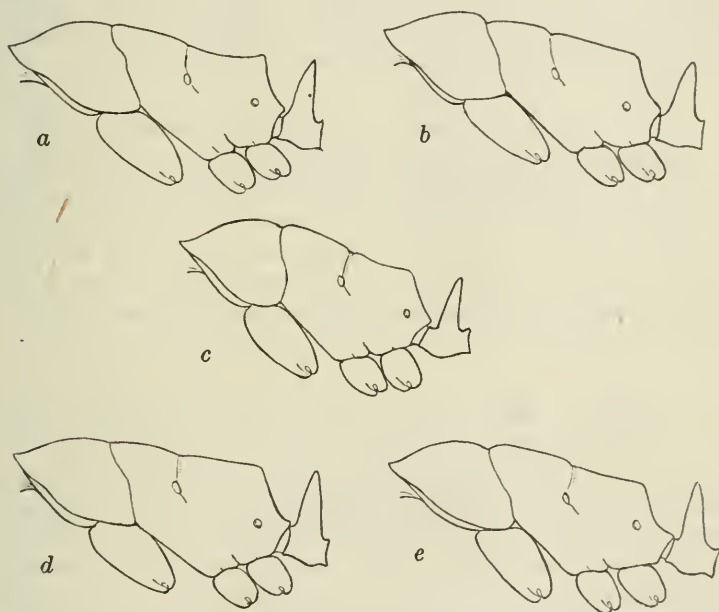


Fig. 3. a, *Camponotus (Myrmobrachys) capperi* Forel, thorax and petiole in profile; b, same of subsp. *corticalis* Forel, c, of subsp. *unctulus* subsp. nov., d, of var. *formosulus* var. nov., e, of subsp. *subdepilis* Wheeler.

cheeks and semicircular postocular region. Mandibles edentate. Clypeus carinate, with entire, rounded and somewhat projecting anterior border. Thorax robust; mesonotum large and protuberant, overarched the pronotum, broader than long. Petiole short, thick and low, its dorsal surface impressed in the middle. Gaster rather broad.

Mandibles shining, punctate; head and thorax opaque, densely

and finely punctate as in the worker; epinotum, petiole, and gaster very finely punctate-shagreened and shining.

Hairs pale, erect, very sparse on the head and thorax, more abundant on the gaster; pubescence yellowish, on the gaster much as in the worker, long and dense and nearly concealing the surface.

Black; mandibles, funiculi, legs, petiole, and gaster reddish brown; wings dull brownish hyaline, with brown veins and pterostigma.

Described from numerous specimens taken by Mr. A. E. Wight at Troy (type locality), Mandeville, and Balaclava. Those from Mandeville were attending membracid nymphs. In my 1911 list of Jamaican ants I referred this form to the typical *capperi*, but it undoubtedly represents a distinct variety or, perhaps, even a subspecies.

39. *Camponotus (Myrmobrachys) capperi* subsp. *corticalis* Forel.

In this subspecies (Fig. 3 *b*), of which I have examined three cotypes taken by Forel at Kingston, the thorax is like that of the var. *formosulus*, except that the mesoëpinotal suture is more deeply impressed. The color is different, the head, thorax, and gaster being black, the antennae, legs, and petiole red, the antennal scapes and tibiae have numerous suberect hairs and the pubescence on the gaster is much shorter and sparser so that the shining surface is clearly visible.

40. *Camponotus (Myrmobrachys) capperi* subsp. *subdepilis* Wheeler.
♀.—Port Antonio, Troy, and Balaclava (A. E. Wight).

This form (Fig. 3 *c*), described as a variety of *corticalis*, evidently deserves to rank as a subspecies. The head of the *major* worker is longer, more elliptical and with more convex occiput; the epinotum is shaped like that of the subsp. *corticalis*, but the mesoëpinotal suture is less impressed. The erect hairs on the body are much less numerous and lacking on the scapes and tibiae. The color and sculpture are similar, but the gaster is somewhat more shining and the petiole is darker.

*41. *Camponotus (Myrmobrachys) capperi* subsp. *unctulus*, subsp. nov.

Worker. (Fig. 3 *c*). Length 4.5–6 mm.

Head of the *maxima* much as in the typical *capperi*, subtrapezoidal, with the sides and posterior margin feebly convex. Thorax differing from that of all the preceding forms of *capperi* in being shorter, more convex anteriorly, with the epinotum lower and much more com-

pressed laterally. Base of epinotum distinctly concave in profile as in the typical *capperi*, and the promesonotal suture deeply, the meso-epinotal suture not impressed. The petiole is also thinner.

Sculpture, color, and pilosity much as in *subdepilis*, but the head and thorax are less opaque, the promesonotal suture very shining and the petiole black like the head, thorax, and gaster.

Female (deälated). Length 8 mm.

Long and slender. Head subopaque and densely and finely punctate, clypeus and cheeks with scattered, shallow piligerous foveolae, thorax and gaster shining, mesonotum with a few coarse punctures or foveolae. Petiole with the upper margin notched in the middle. Pilosity and pubescence even sparser than in the worker, the pubescence on the gaster very short. Black; clypeus, cheeks, antennae, legs, pro- and mesosterna red.

Described from a single female and 44 workers belonging to a single colony taken by Professor Brues at Newton, 3,000 ft.

TAXONOMIC PAPERS ON JAMAICAN ANTS.

1892. ANDRÉ, ERNEST. Matériaux myrmécologiques. Rev. ent., 1892, **11**, p. 45-56.
1893. ANDRÉ, ERNEST. Description de quatre espèces nouvelles de fourmis d'Amérique. Rev. ent., 1893, **12**, p. 148-152.
- 1899-1900. FOREL, A. Biologia Centrali-Americana. Hymenoptera. **3**. Formicidae, 1899-1900, 169 pp., 4 pls.
1902. FOREL, A. Quatre notices myrmécologiques. Ann. Soc. ent. Belg., 1902, **46**, p. 170-182.
1907. FOREL, A. Formiciden aus dem Naturhistorischen museum in Hamburg. Teil. 2. Mitth. Naturh. mus. Hamb., 1907, **24**, p. 1-20.
1912. FOREL, A. Formicides Néotropiques. Parts 1-6. Ann. Soc. ent. Belg., 1912, **56**, p. 28-49. Mém. Soc. ent. Belg., 1912, **19**, p. 179-209, 211-237; **20**, p. 1-32, 33-58, 59-92.
1858. SMITH, FRED. Catalogue of hymenopterous insects in the collection of the British museum. Part 6. Formicidae, London, 1858.
1908. WHEELER, W. M. The ants of Jamaica. Bull. Amer. mus. nat. hist., 1908, **24**, p. 159-160.
1911. WHEELER, W. M. Additions to the ant-fauna of Jamaica. Bull. Amer. mus. nat. hist., 1911, **30**, p. 21-29.
1913. WHEELER, W. M. Ants collected in the West Indies. Bull. Amer. mus. nat. hist., 1913, **32**, p. 239-244.